Fax

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United States Patent and Trademark Office
Art Unit 2632
Washington, D.C. 20231

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Subject: Re-transmission of 4/21/03 fax with signature on cover letter

Memo:

Thank you for your call this afternoon. Please find on the following pages, the fax I sent to you on April 21, 2003 with the addition of a signature on the cover letter. The April 21, fax did not have a signature as I sent it from my fax modem connected to my personal computer. The fax modem sends the file as saved to the hard drive, and in turn it did not contain a manual signature. I am sending this fax from a local Mail Boxes Etc. and will therefore ask that any return fax numbers appearing on the transmitted pages not be used as I do not have an account or notification method established with this vendor. Please feel free to contact me at the address or telephone number above. Thank you for your assistance.

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April 21, 2003

Ms. Julie Bichngoc Lieu
United States Patent and Trademark Office
Art Unit 2632
Washington, D.C. 20231

Dear Ms. Lieu:

Thank you for returning my call this afternoon. Please find enclosed my response to your Office Action dated January 14, 2003. Reference information is as follows:

Application Control Number:	09/877,809
Filing date:	6/7/2001
Title:	Methods and Apparatus for Controlling Electric Appliances During Reduced Power Conditions
Detailed Action date:	1/14/2003
Confirmation Number:	1206

The response is followed by a clean and/or continuous set of claims from 1 to 52.

If prosecution of the application can be expedited by telephone, the Examiner is invited to call the undersigned at the number on this letterhead above. Thank you for your assistance.

Sincerely,

Jay W. Gardner

Jay W. Gardner

Application/Control Number: 09/877,809
Art Unit: 2632
Applicant: Jay Warren Gardner

Claim 1 stands rejected under 35 U.S.C. 102(b) with reference to Peddie et al. (US Patent No. 4,471,323) in col. 6, lines 29-40. However, upon closer inspection of this section, specifically the sentence in lines 35-38 of col. 6, it becomes clear that Peddie et al. measures and sends signal(s) when the overall demand on the source "exceeds the predetermined amount". This is reinforced in Peddie et al. in the closing sentence of this same paragraph (col 6, line 63-64) "A signal is transmitted only if the measured demand is above the comparison level". The "predetermined amount"(s), "comparison level"(s), and sometimes referred to as "predetermined magnitude"(s), in Peddie et al., are all terms for load levels that must be determined for each and every system installation. My system does not communicate a condition of being over a predetermined amount and therefore eliminates the requirement of setting these load levels. In contrast, my system transmits how much additional load the system can support by reporting "load capability data" (Claim 1 as submitted).

Table 1 below, illustrates the difference between the information transmitted by Peddie et. al.'s Power Source Monitor and the load capability data transmitted by my system's Generator Monitor. Given Peddie et al. provides no methodology for the installer to use in determining demand levels, I simply assume the installer has determined that the Power Source Monitor should transmit a signal at a demand level of 75%.

Power Source Or Reference Capability	Load on Power Source	Peddie et al. Power Source Monitor Reports	My Generator Monitor Reports Load Capability Data
4000 Watts	3000 Watts	One Signal	1000 Watts Available
8000 Watts	6000 Watts	One Signal	2000 Watts Available
12000 Watts	9000 Watts	One Signal	3000 Watts Available
16000 Watts	12000 Watts	One Signal	4000 Watts Available
20000 Watts	15000Watts	One Signal	5000 Watts Available

Table 1

Table 1 above provides a distinct contrast between Peddie et al.'s system and mine for the five installations and load conditions listed. For each load condition, Peddie et al.'s system transmits one signal, whereby my system reports quantitative "Load Capability Data". The one, non descript, signal transmitted by Peddie et al.'s Power Monitor is meaningless, until the installer assigns a meaning and then programs a "priority interrupt device" (col. 6 line 66), to do something, or not do something, when the signal is detected. The "Load Capability Data" transmitted by my Generator Monitor accurately describes each system's ability to support additional load and does so in a format that can be detected and understood by the other devices in the system, without the need for translation or interpretation by the installer.

Table 2 below, provides further examples of the differences between Peddie et al. and my system. Table 2 demonstrates the requirement in Peddie et al.'s system, for the installer to establish the "predetermined amount"(s) at which point signals should be transmitted. Again, since Peddie et al. does not provide a method for establishing these predetermined amounts, I will make a general assumption that the installer has established the following:

At a 70% demand level, the Power Source Monitor will transmit 1 signal
At an 80% demand level, the Power Source Monitor will transmit 2 signals
At a 90% demand level, the Power Source Monitor will transmit 3 signals
At a 95% demand level, the Power Source Monitor will transmit 4 signals

Power Source Or Reference Capability	Load on Power Source	Peddie et al. Power Source Monitor Reports	My Generator Monitor Reports Load Capability Data
4000 Watts	2000 Watts	No Signal	2000 Watts Available
8000 Watts	6000 Watts	One Signal	2000 Watts Available
12000 Watts	10000 Watts	Two Signals	2000 Watts Available
16000 Watts	14000 Watts	Two Signals	2000 Watts Available
20000 Watts	18000 Watts	Three Signals	2000 Watts Available

Table 2

Table 2 above presents a range of five different configurations, in which each has an identical load capability 2000 Watts. In the case of Peddie et al., this identical capability of 2000 Watts is reported four different ways. In contrast, the Generator Monitor in my system transmits a consistent and accurate, 2000 Watts of Load Capability.

The clarifications above demonstrate that the "Load Capability Data" transmitted by my system is very different from the "Signals" transmitted in Peddie et al.'s system. The "Load Capability Data" transmitted by my system is also more meaningful, accurate and useful, than the signals transmitted by Peddie et al.'s system.

Accordingly, reconsideration of the rejection and allowance of claim 1 is respectfully requested.

With regard to the various dependent claims 2 - 23, it follows that these claims should inherit the allowability of the independent claim from which they depend.

Claims 24 - 52 are added below:

24. (NEW) An electric power monitoring system comprising:

a source monitor for measuring momentary power output of an electric source supplying electric power to a power distribution system having at least one electric load;

means for comparing the momentary power output with a reference load capability for the electric source to determine the ability of the electric source to support additional load, and for transmitting load capability data based on the load capability; and

a multiplicity of load controls comprised of interrupt switches for interrupting and returning the supply of power to the electric load;

means for each interrupt switch to execute an independent decision process to return power to corresponding loads in sequential order based on a corresponding sequence number, a common time increment, the magnitude of the corresponding supported load and the transmitted load capability data.

(NEW)

25. An electric power monitoring system of claim 24 where in the interrupt switch returns power to a load out of sequence when that load is the first load in the sequence that is less than the load capability reported in an increase in the load capability data.

(NEW)

26. An electric power monitoring system of claim 24 where in an initial time interval is added to the method, where in this initial time interval begins at the time a reported load capability increases, and is used by the interrupt switches to allow predominantly low priority loads that have had power to their loads interrupted for a time greater than or equal to a predetermined time, to return power to their loads ahead of higher priority loads.

(NEW)

27. An electric power monitoring method comprising:

a source monitor for measuring momentary power output of an electric source supplying electric power to a power distribution system having at least one electric load;

means for comparing the momentary power output with a reference load capability for the electric source to determine the ability of the electric source to support additional load, and for transmitting load capability data based on the load capability; and

at least one load control for receiving the transmitted load capability data and controlling the supply of power to the at least one corresponding electric load based on the load capability data.

(NEW)
28. The electric power monitoring method of claim 27 wherein the reference load capability is determined based on at least one of a reference surge load and a reference continuous load.

(NEW)
29. The electric power monitoring method of claim 28 wherein the reference surge load or reference continuous load are programmable according to time of day.

(NEW)
30. The electric power monitoring method of claim 27 wherein the source monitor comprises multiple source monitors, and wherein the means for comparing compares the momentary power output with multiple reference load capabilities, and transmits multiple load capability data to respective multiple loads according to unique load identifiers.

(NEW)
31. The electric power monitoring method of claim 27 wherein the reference load is adjusted in accordance with electric source drive capability, electric source efficiency, or predetermined load patterns, during a power source initialization.

(NEW)
32. The electric power monitoring method of claim 27 wherein the at least one load control comprises an interrupt switch for interrupting the supply of power to the electric load when the transmitted load capability is less than a predetermined level.

(NEW)
33. The electric power monitoring method of claim 32 wherein the interrupt switch interrupts the supply of power for an interrupt time period upon the return of power following a power failure condition.

(NEW)
34. The electric power monitoring method of claim 33 wherein the interrupt time period is set to delays the return of power for a period of time for the purpose of reducing the total sudden load on the main power source at initial power return.

(NEW)
35. The electric power monitoring method of claim 32 wherein the interrupt switch further monitors electric power levels drawn by the at least one electric load and interrupts the supply of power to the electric load when the transmitted load capability is less than the monitored power levels of the at least one electric load.

(NEW)
36. The electric power monitoring method of claim 32 wherein the interrupt switch delays interruption of the supply of power until the electric load has completed an operation cycle.

(NEW)
37. The electric power monitoring method of claim 32 wherein the interrupt switch delays interruption of the supply of power until the electric load has completed an operation cycle if the electric load's continuous load level is substantially equal to a predetermined level of normal operation.

(NEW)
38. The electric power monitoring method of claim 32 wherein the interrupt switch further comprises a signal transmission method that transmits interrupt switch identifier data and interrupt switch status data.

(NEW)
39. The electric power monitoring method of claim 38 wherein a switch open status is transmitted when the switch is open and wherein a switch closed status is transmitted just prior to closing the switch for transmitting status data when the corresponding electric load is without power and thereby unable to emit any electromagnetic interference that would compromise the interrupt switch status transmission.

(NEW)
40. The electric power monitoring method of claim 27 further comprising a user interface indicating a condition of whether the electric source has sufficient load capability for supplying electrical power to the at least one electric load.

(NEW)
41. The electric power monitoring method of claim 40 wherein the user interface receives and displays data from the at least one load control related to the electric load level.

(NEW)
42. The electric power monitoring method of claim 40 wherein the user interface interprets a first difference in surge load capability in excess of the continuous load capability and compares this difference to a second difference between a start up surge and continuous load of electric load and determines a power level reported to the user on the interface.

(NEW)
43. The electric power monitoring method of claim 38 further comprising a user interface for reporting the interrupt switch status data to a user.

(NEW)
44. The electric power monitoring method of claim 43 wherein the user interface measures the time period an interrupt switch is open and reports data related to the time period to a user.

(NEW)
45. The electric power monitoring method of claim 43 wherein the electric source is a fuel-based generator, wherein the source monitor measures fuel level in a fuel tank for the generator, and wherein fuel data based on the fuel level is provided on the user interface.

(NEW)
46. The electric power monitoring method of claim 45 wherein the user interface measures total electric power consumed by the power distribution system, measures the fuel consumed for generating the power, and presents a cost per energy unit for comparison with current or available utility rates.

(NEW)
47. The electric power monitoring method of claim 27 wherein the at least one load control comprises a variable circuit breaker that adjusts dynamically to the transmitted load capability.

(NEW)

48. The electric power monitoring method of claim 27 wherein the at least one load control comprises an outlet adapter that closes an outlet to an appliance plug when load capability from the electric source is below a predetermined level.

(NEW)

49. The electric power monitoring method of claim 27 wherein the load capability is determined based on a reference output intended to reduce power consumption during peak load or reduced power conditions.

(NEW)

50. An electric power monitoring method comprising:

a source monitor for measuring momentary power output of an electric source supplying electric power to a power distribution system having at least one electric load;

means for comparing the momentary power output with a reference load capability for the electric source to determine the ability of the electric source to support additional load, and for transmitting load capability data based on the load capability; and

a multiplicity of load controls comprised of methods for interrupting and returning the supply of power to the electric load;

means for each method to execute an independent decision process to return power to corresponding loads in sequential order based on a corresponding sequence number, a common time increment, the magnitude of the corresponding supported load and the transmitted load capability data.

(NEW)

51. An electric power monitoring method of claim 50 where in the methods for interrupting and returning power to a load, return power out of sequence when that load is the first load in the sequence that is less than the load capability reported in an increase in the load capability data.

(NEW)

52. An electric power monitoring method of claim 50 where in an initial time interval is added to the method, where in this initial time interval begins at the time a reported load capability increases, and is used by the interrupt switches to allow predominantly low priority loads that have interrupted power to their loads for a time greater than or equal to a predetermined time, to return power to their loads ahead of higher priority loads.